

REMARKS

Claims 18-51 are pending in this application. By this Amendment, the specification, drawings, and claims 18, 22, 31, 34-36, 38, 45-47, 50 and 51 are amended.

The Office Action states that it is final because Applicants' amendment necessitated the new grounds of rejection. Applicants respectfully disagree that the new grounds of rejection were necessitated by Amendment A. Claim 34 was not amended in Amendment A and the rejection of claim 34 based on Poumey was withdrawn by the current Office Action. As a result, the new grounds of rejection of claim 34 was not necessitated by any amendment made in Amendment A. In light of the above, Applicants submit that the finality of the current Office Action should be withdrawn and the amendments made by this Amendment B should be entered and considered.

The Office Action objected to the drawings under 37 C.F.R. §1.83(a) based on the assertion that they fail to show (1) the winding core 27 in Figure 2; (2) the side walls 86, 88 and centering elevation in Figure 8; and (3) the outer wall, inner wall and base of the winding core described on pages 2-3 of the specification. The group of core elements 26 shown in Figure 2 are the winding core 27 (see page 8, lines 7-10). A replacement Figure 2 is provided in which reference character 27 is added and a replacement Figure 8 is provided in which reference characters 86, 88 and 90 are added. An example of the outer wall described on pages 2-3 of the specification is side wall 88. An example of the inner wall described on pages 2-3 of the specification is central column 76. An example of the base of the winding core described on pages 2-3 of the specification is the horizontal section of winding core 74 that attaches side wall 88 to central column 76.

The Office Action asks what the distinction is between winding core 16 and winding core 27. Winding core 16 shown in Figures 1 and 3 is an embodiment of the winding core that is described in detail on page 7, lines 18-25, of the specification. Winding core 27 (which is shown on Figure 2 and described in the specification at page 8, lines 7-16) is a different embodiment of the winding core. Because the reference number 27 was inadvertently omitted from Figure 2, a replacement Figure 2 is provided herewith including reference character 27.

In light of the above, Applicants request that the objection be withdrawn.

The Office Action objected to the drawings under 37 C.F.R. §1.84(p)(4) based on several alleged issues with the drawings. The Office Action states that reference characters 72 and 74 in Figure 8 both refer to “the” winding core. Applicants direct attention to the specification at page 11, line 28, where it is explained that there are *two* winding cores (72 and 74). Applicants also direct attention to Figure 8 which clearly shows *two* winding cores. Winding core 72 is in the lower part of Figure 8 and winding core 74 is in the upper part of Figure 8.

The Office Action states that reference characters 20 and 29 in Figure 1 have both been used to designate the primary winding. Reference character 20 in Figures 1 and 3 is the primary winding. Applicants cannot find a reference character 29 used anywhere in the drawings. The specification erroneously referred to the primary winding as “29” in one place on page 7. This typographical error is correct by this Amendment.

The Office Action states that reference characters 80 and 82 have both been used to designate “the” winding in Figure 8. As shown in Figure 8 and described in the specification, there are *two* windings in this embodiment. The specification states at page 11, lines 28-29, that Figure 8 shows an arrangement of two winding cores *having respectively* one winding (80, 82) guided around their central columns. Applicants submit that this language clearly states that there are *two* windings and that the two windings are clearly shown in Figure 8. This Amendment amends the specification at page 11, line 28, to include the reference numbers of both winding cores.

The Office Action states that reference characters 76 and 78 have both been used to designate “the” central column in Figure 8. As shown in Figure 8 and described in the specification, there are *two* central columns in this embodiment. The specification states at page 11, lines 28-29, that Figure 8 shows an arrangement of two winding cores *having respectively* one winding (80, 82) guided around their central columns 76, 78. Applicants submit that this language clearly states that there are *two* central columns, one of each winding core, and that the two central columns are clearly shown in Figure 8.

Applicants further submit that one skilled in the relevant art would understand the elements referenced above from the specification and drawings.

In light of the above, Applicants request that the objection be withdrawn.

The Office Action objected to the Abstract based on the assertions that it was not on a separate piece of paper and that it contains language such as “comprises”. Applicants direct attention to the Preliminary Amendment that was filed with the Application. The Preliminary Amendment includes an Abstract on a separate piece of paper that does not contain the word “comprises”. As a result, Applicants request that the objection be withdrawn.

The Office Action objects to Amendment A filed October 7, 2010, based on the assertion that it introduced new matter in claims 50 and 51. Applicants direct attention to Figures 1-3 that show a first embodiment of the invention that includes the inner wall, outer wall and base forming a trough as described in claims 50 and 51. Applicants also direct attention to Figure 8 that shows a second embodiment of the invention that includes the inner wall, outer wall and base forming a trough as described in claims 50 and 51.

Figures 1-2 show a winding core 27, made up of sixteen elements 26, each having an outer wall (shown in plan view in Figure 2), an inner wall (shown in plan view in Figure 2), and a base (the horizontal sections that runs under secondary winding 28 and attach each outer wall to its respective inner wall) connecting the outer wall to the inner wall such that the outer wall, inner wall and base form a trough in which secondary winding 28 is positioned. Figures 1 and 3 show a winding core 16 having an outer wall (shown in plan view in Figure 3), an inner wall (shown in plan view in Figure 3), and a base (the horizontal section that runs under primary winding 20 and attaches the outer wall to the inner wall) connecting the outer wall to the inner wall such that the outer wall, inner wall and base form a trough in which primary winding 20 is positioned.

Figure 8 shows a winding core 74 having an outer wall 88 (reference character 88 is in the original specification at page 11, line 31, and is added to Figure 8 by this Amendment), an inner wall (central column 76), and a base (the horizontal section that attached 88 to 76) connecting the outer wall to the inner wall such that the outer wall, inner wall and base form a trough in which secondary winding 80 is positioned. Figure 8 also shows a winding core 72 having an outer wall 86 (reference character 86 is in the original specification at page 11, line 31, and is added to Figure 8 by this Amendment), an inner wall (central column 78), and a base (the

horizontal section that attached 86 to 78) connecting the outer wall to the inner wall such that the outer wall, inner wall and base form a trough in which primary winding 82 is positioned.

In light of the above, Applicants submit that no new matter was added by Amendment A and request that the objection be withdrawn.

The Office Action rejected claims 31-33, 47-49, 50 and 51 under 35 USC §112, second paragraph. Applicants respectfully traverse the rejection and submit that the claims are in conformance with 35 USC §112, second paragraph, and no amendments are needed. However, in the interest of expediting prosecution, the claims are amended to obviate the rejection.

In light of the above, Applicants request that the rejection be withdrawn.

The Claimed Invention

Some conventional pots for use in inductive heating include a conventionally shaped secondary winding and a heating element built into the base of the pot. The conventionally shaped secondary winding can lead to a pot having a base that occupies a large volume.

An object of the invention is to provide an inductive heating system in which a smaller amount of space is needed in the base of the pot. This is particularly useful in smaller pots.

The Hibino Reference

The Office Action rejected claims 18-20, 22-26 and 50 under 35 U.S.C. §102(a) as being unpatentable over U.S. Patent No. 3,928,744 to Hibino et al. Applicants respectfully traverse the rejection.

The term “fixed” is defined by the Merriam-Webster dictionary as “securely placed or fastened: stationary”.

Claim 18 includes the feature of a heating element fixed to the secondary winding. In contrast, the office action defined heating element (cooking vessel 10) of Hibino is not fixed (securely placed or fastened) to the office action defined secondary winding (excitation coil 70). When cooking vessel 10 is lifted off of range table 40, excitation coil 70 remains in range table 40 because cooking vessel 10 is not fixed to excitation coil 70.

Claims 19, 20 and 22-26 depend from claim 18.

Claim 22 includes the feature of the winding core including a plurality of separate core elements. The Office Action points to core 60 shown in Fig. 22 of Hibino as having four core elements (magnetic poles 61-64). Applicants respectfully submit that magnetic poles 61-64 are poles of a single core element, not separate core elements.

Claim 50 includes the feature of a heating section being fixed to the container and requires that the winding and core be part of the heating section. In contrast, the office action defined winding (excitation coil 70) and the office action defined core (core 60) of Hibino are not fixed (securely placed or fastened) to the office action defined container (cooking vessel 10). When cooking vessel 10 is lifted off of range table 40, excitation coil 70 and core 60 remain in range table 40 because cooking vessel 10 is not fixed to excitation coil 70 or core 60.

In view of the foregoing, Applicants respectfully submit that Hibino does not disclose each and every features of claims 18-20, 22-26 and 50 and, therefore, rejection under 35 USC §102(a) is inappropriate. As a result, Applicants respectfully request withdrawal of the rejection.

The Schroeder Reference

The Office Action rejected claims 34, 36, 38-40, 42, 44 and 51 under 35 U.S.C. §102(b) as being unpatentable over U.S. Patent No. 3,530,499 to Schroeder. Applicants respectfully traverse the rejection.

Claim 34 includes the feature of a container having a secondary winding. In contrast, pan 11 of Schroeder does not having a winding.

Claim 36 includes the feature of the winding core being configured as a pot core. The specification (at page 2, line 31-page 3, line 1) defines “pot core” as an at least largely rotationally symmetrical core comprising an outer wall and an inner wall separated from the outer wall by a base. Applicants submit that there is no indication that core 53 of Schroder (shown in Fig. 5) is a pot core in that Schroeder does not state that core 53 is pot-shaped or even rotationally symmetrical. Applicants submit that the circular shape of bottom 52 of cup 50 does not dictate that core 53 must be pot-shaped or circular. Other containers in Schroeder are circular, but their corresponding cores are all rectangular with open ends. As a result, there is no

reason to believe that core 53 is anything other than rectangular with open ends.

Claim 38 includes the feature of the winding core including a plurality of separate core elements. Fig. 2 of the Application shows an example of a core having a plurality of separate core elements 26. The Office Action points to the cores shown in Figs. 5 and 7 of Schroeder as having a plurality of core elements. Applicants respectfully submit that the plurality of *reference numbers* used to describe the cores shown in Figs. 5 and 7 do not refer to separate core elements, they simply refer to features of the respective cores.

Claims 39, 40, 42 and 44 depend from claim 38.

Claim 51 includes the feature of a winding core having an outer wall, an inner wall, and a base that together form a trough in which the primary winding is positioned. The Office Action points to Fig. 7 of Schroeder as showing a winding core 75 having these features. Applicants submit that it is clear from Fig. 7 that core 75 does not include a base and does not form a trough as required by claim 51. Core 75 is a simple ring shape with no base and nothing that can be considered a trough. Also, there is no winding shown on core 75, so core 75 cannot be a winding core, as required by claim 51.

In view of the foregoing, Applicants respectfully submit that Schroeder does not disclose each and every features of claims 34, 36, 38-40, 42, 44 and 51 and, therefore, rejection under 35 USC §102(b) is inappropriate. As a result, Applicants respectfully request withdrawal of the rejection.

The Hibino Reference in view of the Schroeder Reference, the Akel Reference and the Ose Reference

The Office Action rejected claims 21 and 27-33 under 35 U.S.C. §103(a) as being unpatentable over Hibino in view of Schroeder, U.S. Patent No. 6,498,325 to Akel et al. and U.S. Patent Application Publication No. US 2001/0019048 to Ose et al. Applicants respectfully traverse the rejection.

Claims 21 and 27-33 depend from claim 18.

Applicants submit that neither Schroeder, Akel nor Ose remedies the deficiencies of

Hibino discussed above.

In view of the foregoing, Applicants respectfully submit that the combination of Hibino, Schroeder, Akel and Ose does not teach or suggest the features of claims 21 and 27-33 and, therefore, rejection under 35 USC §103(a) is inappropriate. As a result, Applicants respectfully request withdrawal of the rejection.

The Schroeder Reference in view of the Hibino Reference, the Akel Reference and the Ose Reference

The Office Action rejected claims 35, 37-43 and 45-49 under 35 U.S.C. §103(a) as being unpatentable over Schroeder in view of Hibino, Akel and Ose et al. Applicants respectfully traverse the rejection.

Claim 35 includes the feature of the winding core being substantially rotationally symmetrical. Applicants submit that neither Hibino, Akel nor Ose remedies the deficiencies of Schroeder discussed above. The Office Action refers to core 67 in Fig. 6 of Hibino. Applicants submit that a core 67 is not shown anywhere in Hibino. Further, Applicants submit that neither Hibino, Akel, nor Ose provides motivation to combine a substantially rotationally symmetrical winding core with the device of Schroeder.

Claim 37 depends from claim 36. Applicants submit that neither Hibino, Akel nor Ose remedies the deficiencies of Schroeder discussed above.

Claims 39-43 and 47-49 depend from claim 38. Applicants submit that neither Hibino, Akel nor Ose remedies the deficiencies of Schroeder discussed above.

Claim 45 includes the feature of the primary winding being arranged on a printed circuit board. While Akel may include a printed circuit board, Akel does not show a primary winding being arranged on a printed circuit board. Further, the Office Action does not point to anything in Akel that corresponds to the claimed primary winding.

Claim 46 depends from claim 34. Applicants submit that neither Hibino, Akel nor Ose remedies the deficiencies of Schroeder discussed above.

In view of the foregoing, Applicants respectfully submit that the combination of

Schroeder, Hibino, Akel and Ose does not teach or suggest the features of claims 35, 37-43 and 45-49 and, therefore, rejection under 35 USC §103(a) is inappropriate. As a result, Applicants respectfully request withdrawal of the rejection.

CONCLUSION

In view of the above, entry of the present Amendment and allowance of claims 18-51 are respectfully requested. If the Examiner has any questions regarding this amendment, the Examiner is requested to contact the undersigned. If an extension of time for this paper is required, petition for extension is herewith made.

Respectfully submitted,

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